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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,527	06/28/2001	Georgios Karagiannis	34648-00452	8186
38065	7590	05/04/2005	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR C11 PLANO, TX 75024			HAILE, FEBEN	
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/895,527

Applicant(s)

KARAGIANNIS ET AL.

Examiner

Feben M Haile

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on June 28, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12, 23-33, and 36-37 is/are allowed.
- 6) ☒ Claim(s) 13-16 and 34-35 is/are rejected.
- 7) ☒ Claim(s) 17-22, and 38-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/2/01 & 3/20/02
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on page 8 line 21, the word “**fulfil**” is spelled incorrectly. This word should be changed to **-fulfill-**. Appropriate correction is required.
2. The disclosure is objected to because of the following informalities: on page 19 line 11, the phrase “**(see [Stev97].**” is missing the end parenthesis. This phrase should be changed to **-(see [Stev97])-**. Appropriate correction is required.
3. The disclosure is objected to because of the following informalities: on page 25 line 12, the word “**Follcwing**” is spelled incorrectly. This word should be changed to **-Following-**. Appropriate correction is required.
4. The disclosure is objected to because of the following informalities: on page 25 line 13, reference is made to “**step A7**” corresponding to figure 5 but this figure does not have a step A7. Appropriate correction is required.

Claim Objections

5. Claim 1 is objected to because of the following informalities: on page 27 line 4, the word “**protpcol**” is spelled incorrectly. This word should be changed to **-protocol-**. Appropriate correction is required.
6. Claim 2 is objected to because of the following informalities: on page 27 line 22-23, the phrase “**wherein the domain administrator**” should be replaced by the phrase **-wherein a domain administrator-**. Appropriate correction is required.

Art Unit: 2663

7. Claim 3 is objected to because of the following informalities: on page 27 lines 26-27, the phrase **"the administrator of the network domain"** should be replaced by the phrase **-the domain administrator-**. Appropriate correction is required.
8. Claim 5 is objected to because of the following informalities: on page 28 line 8, the word **"configures"** should be replaced by the word **-configured-**. Appropriate correction is required.
9. Claim 19 is objected to because of the following informalities: on page 31 line 2, the word **"routers6"** should be replaced by **-routers-**. Appropriate correction is required.
10. Claim 23 is objected to because of the following informalities: on page 32 line 9, the sentence ends in 2 periods. One of these periods should be removed. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 13-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Data structures not claimed as embodied in a medium are descriptive material and are not statutory because they are not capable of causing functional change in the medium. Since an algorithm is merely a set of instructions capable of being executed by a medium, the algorithm itself is not a

process. A claim for an algorithm, without a medium needed to realize the algorithm's functionality, is nonstatutory functional descriptive material.

12. Claims 34-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Data structures not claimed as embodied in a computer-readable media are descriptive material and are not statutory because they are not capable of causing functional change in the computer. Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process. A claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, is nonstatutory functional descriptive material.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goyal et al. (US 6,466,985), hereinafter referred to as Goyal and in view of Civanlar et al. (US 6,078,963), hereinafter referred to as Civanlar.

Regarding claim 34, Goyal discloses the steps comprising: actuating an IP forwarding optional parameter using a source route option (**column 5 lines 24-26; in IP, explicit routing is specified using a source routing option**); receiving a packet

Art Unit: 2663

which has a specified IP destination address (**figure 4 units 402 & 404 and column 8 lines 23-25, a router receives a first packet with a flow label**); checking the forwarding cache if an entry is available for the IP destination address (**figure 4 unit 406 and column 8 lines 25-27; the router searches a flow table to determine if there is an entry for the flow label**); and if affirmative, sending a received packet to a next hop specified by the forwarding cache entry (**figure 4 unit 412 and column 8 lines 29-31; the router obtains the port associated with the flow label from the table and sends the packet**).

Goyal fails to teach the limitations: if there is no entry in the forwarding cache, then, checking if a route table entry exists for the specified destination address; if there is a route table entry, then, storing the route table entry into the forwarding cache, and sending the packet on its way.

Civanlar discloses the steps: where the routing information is not contained in a first level cache, a packet is sent to a routing table look-up engine, where a second level cache is examined for a matching address (**figure 4 and column 7 lines 20-26**).

It would have obvious to one having ordinary skill in the art at the time the invention was made to modify Goyal to incorporate the routing table look-up engine taught by Civanlar. The motivation being that routing and forwarding performance is increased by searching a first level cache and then a second level cache.

Allowable Subject Matter

14. Claims 17-22, and 38-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. Claims 1-12, 23-33, and 36-37 allowed. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, the prior art fails to disclose “**routing all subsequent packets that have the same IP destination address to follow the same path that the first packet has followed, while ensuring that all said subsequent packets will have their strict source route option turned off; and periodically updating the selected shortest and fastest path**”.

Regarding claim 23, the prior art fails to disclose “**sending the received packet via the selected path; and handling following subsequent packets which follow the received packet and are bound to the same destination address by routing them to follow the received packet with the strict source route option turned off**”.

Regarding claim 25, the prior art fails to disclose “**d. and if affirmative, extracting by using special filters configured in the ingress border router, path-information regarding a selected path representing the shortest and fastest path to an egress border router that best matches the IP destination address of the EF packet; and e. inserting in the strict source route option, a list of router addresses which identify the selected path in step (d)**”.

Regarding claim 36, the prior art fails to disclose “**sending the received packet via the selected path; and handling following packets which follow the received packet and are bound to the same destination address by routing them to follow the received packet**”.

Regarding claim 37, the prior art fails to disclose “**d. extracting using special filters configured in the ingress Border Router path- information regarding a selected path representing the shortest and fastest path to an egress Border Router that best matches the IP destination address of the EF packet; and e. inserting in the strict source route option, a list of router addresses which identify the selected path in step (d)**”.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a) Kodiamlam et al. (US 6,584,071), Routing with Service Level Guarantees Between Ingress-Egress Points in a Packet Network

b) Nakamichi et al. (US 6,859,842), Method and Apparatus for Selection of Paths on a Communication Network

c) Armitage et al. (US 6,374,303), Explicit Route and Multicast Tree Setup Using Label Distribution

d) Chen et al. (US 20030053464), Method of Sending Data Packets Through a Multiple Protocol Label Switching MPLS Network, and a MPLS Network

Art Unit: 2663

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Feben M Haile whose telephone number is (571) 272-3072. The examiner can normally be reached on 6:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KENNETH VANDERPUYE
PRIMARY EXAMINER